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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/713,502	11/15/2003	Clair John Glossner III	YOR919990548US4 (8728-341)	9966
46069	7590	01/21/2005	EXAMINER	
F. CHAU & ASSOCIATES, LLC 130 WOODBURY ROAD WOODBURY, NY 11797			PAN, DANIEL H	
			ART UNIT	PAPER NUMBER
			2183	

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/713,502

Applicant(s)

GLOSSNER ET AL.

Examiner

Daniel Pan

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) paragraph # 3-7, and 10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Continuation of Disposition of Claims: Claims pending in the application are 3-11,14-22,25-33,48,50,51,54,55,56 (Claims 1,2,12,13,23,24,34-47,49,52,53,57,58,59,60 have been canceled).

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1. Claims 3-11,14-22,25-33,48,50,51,54,55,56 are presented for examination.

Claims 1,2,12,13,23,24,34-47,49,52,53,57,58,59,60 have been canceled.

2. Upon further review and consideration, the following action is applicable to claims 3-11,14-22,25-33,48,50,51,54,55,56 . Since some of the newly combined features have not being discussed in previous action, this is a non-final action based on a new ground in order to allow applicant a chance to respond.

3. Karp et al. (5,689,653) , Pawate et al. (5,528,550) and Glossner, III et al. (6,665,790) were already cited to applicant in previous action, therefore, copies are not being provided herein.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claim 3 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 40 of U.S. Patent No. 6,665,790.

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Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons :

5. Although the patented claim 40 (claim 40 included all the limitations in parent claim 39) did not recite the pointer array was coupled by a bus to the vector data file as recited in the current claim 3, patented claim 40 included the limitation of providing the pointer array to identify the storage element of the vector data file (see patented claim 39, lines 9-12), and one of ordinary skill in the art should be able to recognize that a bus connection, or the like, could be provided in order to enhance the communication from the pointer array to identify the storage element in the data file, and since no specific format or the type of the bus coupled to the vector data file has been reflected into the claim, it would have been obvious to one of ordinary skill in the art to include a bus connection in a general form to the vector data file for identifying the storage element, and for the above reasons, provided a motivation.

6. Claims 4, 5, 9, 10, 11, 14, 15, 16, 20, 21, 22, 25, 26, 27, 31, 32, 33 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 21, 22, 26, 27, 30, 31, 32, 36, 37, 38, 41, 42, 46, 47, 48, respectively, of U.S. Patent No. 6,665,790. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons :

7. Claims 4, 5, 9, 10, 11, 14, 15, 16, 20, 21, 22, 25, 26, 27, 31, 32, 33 are generic to the species of invention covered by claims 21, 22, 26, 27, 30, 31, 32, 36, 37, 38, 41, 42, 46, 47, 48, respectively (dependent claims 21, 22, 26, 27 included all

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limitations in parent claim 19, similarly claims 30,31, 32,36,37,38, included all the limitations of claim 29, claims 41,42,46,47,48 included all limitations of claim 39) of the patent. Thus, the generic invention is "anticipated" by the species of the patented invention. Cf., *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985) (holding that an earlier species disclosure in the prior art defeats any generic claim) . This court's predecessor has held that, without a terminal disclaimer, the species claims preclude issuance of the generic application. *In re Van Ornum*, 686 F.2d 937, 944, 214 USPQ 761, 767 (CCPA 1982); *Schneller* , 397 F.2d at 354. Accordingly, absent a terminal disclaimer, claim 4 is properly rejected under the doctrine of obviousness-type double patenting (see *In re Goodman* (CA FC) 29 USPQ2d 2010).

8. Claims 48,54 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 10 (claim 10 included limitations of claims 1,5,6), 9 (claim 9 included all limitations of claims 1,5,6) , respectively, of U.S. Patent No. 6,665,790. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reasons :

Although the patented claim 10 (see also claim 9) did not recite the vector memory area and the pointer memory area as recited in current claim 48 (see also current claim 54), it would have been obvious to one of ordinary skill in the art to include a vector memory area and a pointer memory area as claimed because the patented claim 10 (see also claim 9) already taught the vector file was organized in rows and columns (see patented claim 10, lines 1-2, see also patented claim 9), which was a suggestion

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of the use of an organized storage structure, such as a memory area for storing the vector file in order to provide a storage space. And as for the pointer memory area, the patented claim 10 already taught the plurality of pointers were stored in a pointer array, therefore, an array could be an area of n dimensions, such as n x n memory area, and one of ordinary skill in the art should be able recognize the applicability of a pointer memory area for providing a storage space for storing the plurality of pointers, and for the above reasons provided a motivation.

9. As to the controller for performing a specified operation on arbitrary vector portions (see claim 48, lines 3-4, claim 54, lines 3-4), See the limitation of access of arbitrary vector portions set forth in claim 1, line 4, and the performance of a specified operation in claim 1, lines 15-17.

10. As to the plurality of pointers stored in pointer array ( current claim 48, line 9-10, claim 54, lines 10-11), see the limitation in patented claim 6..

11. As the pointer array in rows and columns ( current claims 48, 54, last line), see patented claim 10 and claim 9.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. Claims 48, 50, 51, 54, 55, 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karp et al. (5,689,653) in view of Pawate et al. (5,528,550).

13. As to claims 48, 54, 55, Karp taught at least :

a) a vector memory area (see vector in memory 46 in col.4, lines 32-33) ;

b) controller for performing operation (transfer operation) on arbitrary portions (starting address, vector length) of a vector stored in the memory area (see the vector identifying information specified by instruction col.4, lines 61-66, see the identifying information : vector length and the arbitrary size in col.5, lines 13-32, it arbitrary because it was designated by the instruction);

c) pointer memory area containing address information identifying the portions of the vector (see the 64 bit long address pointer in col.5, lines 13-18).

14. Karp did not specifically show the memory area including a plurality of pointers or the pointer array as claimed. However, Pawate disclosed a pointer array including a plurality of pointers (See the last element of each vector V pointing to the next vector V<sub>n-1</sub> in fig.4, col. 5, lines 65-67, col.6, lines 1-3). It would have been obvious to one of ordinary skill in the art to use Pawate in Karp for including the pointer array as claimed because the use of Pawate could provide Karp the efficient control of the vector data in a predetermined set of the vector access sequence, thereby increasing the efficiency of the vector access in a given group of vector search., and because Karp also disclosed a plurality of registers for transferring the vectors (e.g. see col.6, lines 15-25)



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, which was an indication of a need for using a memory array for storing a plurality of pointer values in order to reduce the hardware latency on the address registers, and in doing so, provided a motivation.

15. Karp is used as primary reference because it showed clearly the operation on specific operation of vector portions (starting address, vector length) of a vector stored in the memory area (see the vector identifying information specified by instruction col.4, lines 61-66, see the identifying information : vector length and the arbitrary size in col.5, lines 13-32, it arbitrary because it was designated by the instruction).

16. As to the matrix of rows and columns (claim 48) or the address representing row and column (claim 54, 55), since no specific format of the matrix or the address of rows and columns has been reflected into the claim, it is read as a general type of a memory format. Karp's memory 46 should have the row and column structure based on the RAM memory already taught in col.3, lines 26-33. In addition to Karp, Pawate taught a RAM or the an alternate RAM , as understood in the art, was organized into 128 rows by 128 columns (see col.3, lines 26-34).

17. As to claim 50, Karp also included a pointer memory area (see the 64 bit long address pointer in col.5, lines 13-18). Karp disclosed a vector system including arbitrarily vector length (e.g. see the vector identifying information specified by instruction col.4, lines 61-66, see the identifying information, vector length and the arbitrary size in col.5, lines 13-32, it was arbitrary because it was designated by instruction).

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18. As to claim 51, Karp also included a load instruction (see the memory load in col.1, lines 48-52).

19. As to claim 56, Karp also taught linear array because the address value to access the memory was a 64-bit value (col.5, lines 13-18), which represented 2 to the 64 possible address values.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Pan whose telephone number is 703 305 9696, or the new number 571 272 4172. The examiner can normally be reached on M-F from 8:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chan, can be reached on 703 305 9712, or the new number 571 272 4162. The fax phone number for the organization where this application or proceeding is assigned is 703 306 5404.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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*21 Century Strategic Plan*

*[Handwritten signature]*  
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